# **Pediatric Rheumatology**



Poster presentation

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# Final validation of a new composite disease activity score for juvenile idiopathic arthritis: the Juvenile Arthritis Disease Activity Score (JADAS)

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from 15th Paediatric Rheumatology European Society (PreS) Congress London, UK. 14–17 September 2008

Published: 15 September 2008

Pediatric Rheumatology 2008, 6(Suppl 1):P115 doi:10.1186/1546-0096-6-S1-P115

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## **Objective**

To complete validation of the Juvenile Arthritis Disease Activity Score.

### Materials and methods

The JADAS is composed of the following measures: 1) physician's global assessment (0-10); 2) parent's global assessment (0-10); 3) active joint count (assessed in 71, 27 or 10 joints); 4) ESR (normalized to 0–10). It yields a score ranging from 0 to 40, 57 or 101, depending on whether the whole 71-joint count (JADAS-71) or the 27joint (JADAS-27) or 10-joint (JADAS-10) reduced counts are used. The 3 versions of the JADAS were tested on juvenile idiopathic arthritis patients included in 2 trials on methotrexate (n = 595) and meloxicam (n = 225). Construct validity was assessed by calculating Spearman's correlation between baseline-endpoint changes in JADAS, C-HAQ and 2 adult scores (DAS28, CDAI). Discriminative validity was assessed by examining the ability of JADAS to discriminate between different levels of ACR Pediatric response in the 2 trials.

#### Results

Table 1 shows Spearman's correlations on changes in the 2 clinical trials.

#### Conclusion

Overall, the JADAS versions including the reduced joint counts (either 27 or 10) revealed better or, at least, similar validity as compared with the version including the 71 (i.e. complete) joint count. Use of JADAS versions with reduced joint counts is advised due to their greater feasibility.

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Table I: Spearman's correlations on changes in the 2 clinical trials

	Methotrexate trial			Meloxicam trial		
	JADAS-71	JADAS-27	JADAS-10	JADAS-71	JADAS-27	JADAS-10
CHAQ	0.46	0.50	0.51	0.44	0.43	0.45
DAS28	0.78	0.80	0.79	0.74	0.74	0.70
CDAI	0.88	0.86	0.72	0.87	0.86	0.75

The JADAS-10 revealed the best discriminative validity, followed by the JADAS-27 and the JADAS-71.

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